



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/839,385	04/20/2001	Mark A. Smith	10001074-1	2505

7590 01/07/2004
HEWLETT-PACKARD COMPANY
Intellectual Property Administration
P.O. Box 272400
Fort Collins, CO 80527-2400

EXAMINER

NGHIEM, MICHAEL P

ART UNIT PAPER NUMBER

2863

DATE MAILED: 01/07/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/839,385

Applicant(s)

SMITH ET AL.

Examiner

Michael P Nghiem

Art Unit

2863

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 June 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 and 10-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 and 10-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

The Response filed on June 30, 2003 has been acknowledged.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-8 and 10-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tomikawa et al. (US 6,039,441) in view of Aono et al. (US 6,471,321).

Tomikawa et al. discloses the claimed features of the invention including:

- a replaceable ink container (1, Fig. 1a) for providing ink to an inkjet printing system (Fig. 5b) and method for forming a seal (Fig. 1b), the inkjet printing system having a replaceable printhead (21) and a receiving station (27) for receiving the replaceable ink container, the receiving station having a fluid inlet (24) and a sealing structure (22), the replaceable ink container comprising:

- a reservoir (2) defining a fluid outlet (11) and a sealing surface (surface of 14) proximate the fluid outlet (Fig. 1b);

Art Unit: 2863

- a sealing material (ink in 2) contained within the reservoir for wetting the sealing surface (Fig. 1a, 1b), the sealing material between the sealing surface and the sealing structure (column 4, lines 25-26) acting to seal defects between the sealing surface and the sealing structure (ink meniscus between surface of 14 and 22, Fig. 1b),
 - the reservoir contains a quantity of ink (Fig. 1a),
 - the sealing surface is configured to be sufficiently wettable such that the sealing surface is wet by the sealing material (wet by ink, column 4, lines 25-26),
 - a storage reservoir having a capillary storage material (3) disposed therein for retaining ink.

However, Tomikawa et al. does not disclose the following claimed features:

- the sealing material including solid particles held in a suspension,
- the solid particles are pigment particles,
- the solid particles are carbon black particles,
- the suspension is a dispersant.

Nevertheless, Aono et al. discloses an ink containing black pigments (column 10, line 7) and a dispersant (column 10, line 8) for the purpose of forming ink meniscus (column 10, line 10).

Art Unit: 2863

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to provide Tomikawa et al. with a pigment-based ink as disclosed by Aono et al. for the purpose of forming ink meniscus.

Response to Arguments

2. Applicant's arguments filed on June 30, 2003 have been considered but are not persuasive.

With respect to the 35 USC 103 rejections, Applicants argue that the combination of Tomikawa and Aono does not disclose a replaceable ink container having a sealing material including solid particles held in a suspension, where solidification of the solid particles between the engaged sealing surface and the sealing structure acts to seal defects between the sealing surface and the sealing structure.

Examiner's position is that Tomikawa discloses a replaceable ink container (1) having a sealing material (ink) between the engaged sealing surface (surface of 14) and the sealing structure (22). Ink containing solid particles (e.g. pigments) for forming ink meniscus is well-known as disclosed by Aono (column 10, lines 7-10). The ink meniscus of Aono can be used as a sealing material for preventing ink leakage and can be dried (solidified) when exposed to the ambient. Thus, modifying Tomikawa to use the ink disclosed by Aono would teach solidification of the solid particles in the sealing material between the engaged sealing surface and the sealing structure acts to seal defects between the sealing surface and the sealing structure.

Art Unit: 2863

Applicants further argue that there is no support in Tomikawa for a sealing material within an ink container for wetting the area between a sealing surface of the ink container and a sealing structure of a receiving station.

Examiner's position is that Tomikawa discloses a sealing material (ink) within an ink container (1) for wetting the area between a sealing surface (surface of 14) of the ink container and a sealing structure (22) of a receiving station (27) (column 4, lines 25-26, Fig. 4).

Applicants further argue that in Tomikawa, the only portion of the depressed part (14) that is wetted with ink is the portion of the depressed part not in contact with jointing member (22). Thus, the area between depressed part (14) and jointing member (22) is not wetted.

Examiner's position is that Tomikawa clearly states that "the depressed part (14) is wetted with ink in a state that **the ink tank (1) is attached to the recording head**" (column 4, lines 25-26). This wetted area in (14) is shown in Fig. 4. Further, Tomikawa states that "when the ink tank (1) is attached to the recording head, **the elastic jointing member (22) is brought into contact with the depressed part (14)**, to thereby form an ink passage."

Conclusion

3. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Contact Information

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Nghiem whose telephone number is (703) 306-3445. The examiner can normally be reached on M-H from 6:30AM – 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Barlow can be reached at (703) 308-3126. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7724 for regular communications and (703) 308-5841 for After Final communications.

Art Unit: 2863

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.



MICHAEL NGHIEM
PRIMARY EXAMINER
Michael Nghiem

January 6, 2004